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EXAMINER

MORILLO, JANEL COMBS

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/642,507	Applicant(s) BENEDICTUS ET AL.	
	Examiner Janelle Combs-Morillo	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 32-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/18/03, 1/05/04, 9/24/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-31, drawn to aluminum alloy product, classified in class 420, subclass 533.
 - II. Claims 32-37, drawn to process of heat treating and working an aluminum alloy, classified in class 148, subclass 694.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a materially different process such as extrusion.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Anthony Venturino on September 1, 2004 a provisional election was made with traverse to prosecute the invention of group I, claims 1-31. Affirmation of this election must be made by applicant in replying to this Office action. Claims 36-40 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-8, 11-31 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2004/0060618 (US'618).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

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US'618 teaches (see cl. 1-2) an aluminum alloy (in weight%): 4.5-5.5% Cu, 0.5-1.6% Mg, $\leq 0.80\%$ Mn, 0.15% max. Fe, 0.15% max. Si, 0.18% max. Zr, 0.18% max Cr, which overlaps the presently claimed ranges of Cu, Mg, Mn, Fe, Si, Zr, and Cr (instant claims 1, 5-8, 11-20, 31). US'618 mentions said alloy is substantially free of Ag (see US'618 at claim 1).

Concerning claims 2-4 and 21-23, said alloy is typically provided in the T39 condition (see US'618 at cl. 21), is $\geq 80\%$ recrystallized (see US'618 at cl 23), and a typical aspect ratio of 1:4 or less (US'618 at cl. 24).

Concerning claims 24-26, US'618 teaches an identical fatigue crack growth rate in cl. 26-27, as well as substantially the same working and heat treating steps performed on the instant Al-Cu alloy (see US'618 at cl. 36).

Concerning claims 27-30, US'618 teaches said alloy product preferably has a thickness of 2.0mm-50mm (see US'618 at cl. 28-29), and is used for various aircraft applications, such as lower wing member or fuselage panels (see US'618 at cl. 30-31).

8. Claims 1, 5, 8, 9, 11-20, and 31 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP60-067636A (JP'636).

JP'636 teaches an aluminum alloy with 4.0% Cu, 1.3% Mg, 0.10% Fe, 0.07% Si, 0.11% Zr, 0.15% Mn, 0.08% Cr, 0.07% V, 0.01% Ti, 0.01% Zn, balance aluminum (Table 1 example 7), which falls within the presently claimed alloying ranges of Cu, Mg, Fe, Si, Zr, Mn, Cr, V, Ti, and Zn.

The presently claimed characteristics of "high damage tolerant", "improved fatigue crack growth resistance", and dispersoids are held to be inherent in the alloy product taught by JP'636.

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With regard to the process steps ("rolled product", "T3 temper"), it is well settled that a product-by-process claim defines a product, and that when the prior art discloses a product substantially the same as that being claimed, differing only in the manner by which it is made, the burden falls to applicant to show that any process steps associated therewith result in a product materially different from that disclosed in the prior art. See MPEP 2113, *In re Brown* (173 USPQ 685) and *In re Fessman* (180 USPQ 524) *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Because JP'636 teaches an Al-Cu -Mg alloy product that falls within the presently claimed ranges, and because applicant has not shown that the instant process steps produce a materially different product than the alloy product taught by JP'636, it is held that JP'636 anticipates, or alternatively, has created a prima facie case of obviousness of the presently claimed invention.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heymes et al (US 6,077,363) in view of JP 07-252574 (JP'574).

Heymes teaches a Al-Cu alloy comprising (in weight%): 3.5-5.0% Cu, 1.0-2.0% Mg, <0.25% Si, <0.25% Fe, <0.55% Mn, others <0.25% (abstract), which overlaps the presently

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claimed alloying ranges of Cu, Mg, Si, Fe, and Mn (claims 1, 5-14, 31). Heymes does not teach the addition of Zr and/or Cr to said alloy.

However, JP'574 teaches the addition of 0.05-0.3% Zr and/or 0.05-0.3% Cr to substantially similar Al-Cu alloys increases toughness (see [0011]-[0013] of translation). It would have been obvious to one of ordinary skill in the art to have added Zr and/or Cr to the Al-Cu-Mg alloy taught by Heymes because JP'574 teaches said addition increases toughness.

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility.

Concerning claim 2, Heymes teaches processing said alloy to a T351 temper (column 7 line 66).

Concerning claims 3 and 4, Heymes teaches the recrystallization at the surface, quarter, and mid thickness in Table 1 of alloy A2 (see trials 4-6). While the mid thickness exhibits a (low) recrystallization of 71%, at least 50% of said alloy product has a recrystallization of $\geq 95\%$. Therefore, the minimum recrystallization taught by Heymes $50\%*71+50\%*95=83\%$, which meets the instant limitation.

Concerning claim 15, as stated above, the combination of Heymes and JP'574 teaches the addition of 0.05-0.3% Zr.

Concerning claim 16-18, as stated above, the combination of Heymes and JP'574 teaches the addition Cr and/or Zr within the presently claimed range (see [0011]-[0013] of translation, see also Table 1).

Concerning claim 19, Heymes does not teach the addition of Ag, and therefore is held to be substantially Ag free.

Concerning claim 20, Heymes teaches example A2 has 0.10% Zn and 0.02% Ti, which meets the instant limitation.

Concerning property claims 21-25, Heymes does not mention the fatigue crack growth rate or aspect ratio. However, Heymes teaches said alloy exhibits excellent fatigue resistance (column 2 line 56). Additionally, Heymes teaches a substantially similar method of processing said alloy including steps of reheating, hot rolling, aging, quenching, stretching, and age hardening (column 6 lines 10-14). The examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Because Heymes teaches substantially similar processing steps performed on an alloy that falls within the instant alloying ranges, it is held that the same properties (aspect ratio, fatigue crack growth rate) would expected to be present.

Concerning claim 26, Heymes teaches a substantially similar method of processing said alloy including steps of reheating, hot rolling, aging, quenching, stretching, and age hardening to a T3 temper (column 6 lines 10-14, column 7 line 66).

Concerning claims 27-28, Heymes teaches said alloy can be made into heavy >20mm (column 4 lines 66-67) thick or average 3-12mm thick sheet (column 1 lines 5-6). Said range taught by Heymes is held to overlap the instant range "with sufficient specificity" (see MPEP 2131.03).

Concerning claim 29, Heymes teaches said alloy can be processed into a sheet for aircraft fuselages (column 2 line 47).

Concerning instant claim 30, it would have been obvious to one of ordinary skill in the art to use said alloy as an aircraft wing member, substantially as presently claimed, because Heymes teaches said Al-Cu alloy has excellent strength and toughness properties and can be used in aircraft construction (column 1 lines 15-16).

Concerning claim 31, as stated above, the example taught by Heymes falls within the instant ranges.

11. Claims 1, 3-20 and 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rioja (US 6,562,154).

Rioja teaches a Al-Cu alloy comprising (in weight%): 3.8-4.4% Cu, 1.0-1.6% Mg, 0.3-0.7% Mn 0.09-0.12% Zr (see Rioja at cl. 5), typically 0.04% Si (Table 1), typically 0.04% Fe (see Table 1), which overlaps the presently claimed alloying ranges of Cu, Mg, Si, Fe, Mn, and Zr (claims 1, 5-15, 17, 18, 31). Rioja teaches that alloying elements Mn and Zr form dispersoids (column 5 lines 25, 32) with help control grain growth and recrystallization. Rioja teaches said alloy is in the form of a rolled product in a T3 type temper (col. 7 line 12).

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the

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range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility.

Concerning claims 3 and 4, Rioja teaches said alloy can have a recrystallized microstructure (column 10 line 1), if given a high temperature recrystallization anneal (column 6 lines 48-51). Therefore, the product taught by Rioja is held to be substantially recrystallized, which falls within the presently claimed ranges of >75% and >80% recrystallized.

Concerning claim 16-18, Rioja teaches the alloying elements that for coherent and incoherent dispersoids in Al can be added to control recrystallization and recovery (column 2 lines 1-10), including Cr and Zr. Though the preferred disclosure of Rioja is drawn to Al-Cu alloys with Zr, it would have been obvious to one of ordinary skill in the art to partially replace Zr with Cr because Rioja teaches that said elements both form dispersoids, and that combinations of dispersoid forming elements can be used (column 2 lines 9-10).

Concerning claim 19, Rioja does not teach the addition of Ag, and therefore is held to be substantially Ag free.

Concerning claim 20, Rioja teaches minor amounts of Sc or Li can be added (see Table 1).

Concerning property claims 24-25, Rioja does not mention the fatigue crack growth rate or aspect ratio. However, Rioja teaches a substantially similar method of processing said alloy including steps of reheating, hot rolling, recrystallize anneal, solution heat treat, aging (column 9 lines 10-14). The examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established.

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In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). “When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Because Rioja teaches substantially similar processing steps performed on an alloy that falls within the instant alloying ranges, it is held that the same properties (fatigue crack growth rate) would be expected to be present.

Concerning claim 26, Rioja teaches a substantially similar method of processing said alloy including steps of reheating, hot rolling, solution heat treating, stretching (column 6 line 14), aging, quenching, and ageing to a T3 type temper (column 9 lines 10-14).

Concerning claims 27-28, Rioja teaches said alloy can be made final sheets 0.01-0.25 in (0.254-6.3mm) and intermediate slabs 2 inches thick (column 8 lines 3-4).

Concerning claim 29, Rioja teaches said alloy can be processed into a sheet for aircraft fuselages (abstract).

Concerning instant claim 30, it would have been obvious to one of ordinary skill in the art to use said alloy as an aircraft wing member, substantially as presently claimed, because Rioja teaches said Al-Cu alloy has excellent strength and toughness properties and can be used in aerospace applications (abstract).

Concerning claim 31, as stated above, the alloying ranges taught by Rioja overlap the instant ranges.

12. Claims 1, 2, 5, 8-20 and 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warner et al (US 6,602,361).

Warner teaches a Al-Cu alloy comprising (in weight%): 3.8-4.4% Cu, 1.0-1.5% Mg, 0.5-0.8% Mn 0.08-0.15% Zr, <0.15% Si, <0.15% Fe (abstract), which overlaps the presently claimed alloying ranges of Cu, Mg, Si, Fe, Mn, and Zr (claims 1, 5, 8-15, 17, 18, 31). Though Warner does not specify that Mn and Zr form dispersoids, because Warner teaches a substantially overlapping range of Mn and Zr, as well as a T351 heat treatment (column 4 line 13), then substantially the same dispersoids (which are dependent on composition and heat treatment) are expected to occur.

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility.

Concerning claim 2, Warner teaches a T351 temper (column 4 line 13) is useful for said Al-Cu alloy product.

Concerning claim 16-18, Warner teaches 0.08-0.15% Zr is present in said alloy (abstract), which falls within the instant range of Zr+Cr <0.20%, as well as 0.1-0.13% Zr+Cr.

Concerning claim 19, Warner does not teach the addition of Ag, and therefore is held to be substantially Ag free.

Concerning claim 20, Warner does not mention the presence of Zn, Hf, V, Sc, Ti, or Li, however, the impurity amounts of Zn, etc. is expected to fall within presently claimed limit of less than 1.00%.

Concerning property claims 24-25, Warner does not mention the fatigue crack growth rate or aspect ratio. However, Warner teaches a substantially similar method of processing said

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alloy including steps of reheating, hot rolling, optional cold transforming, solution heat treat, quenching, cold stretching, aging (column 7 lines 30-35). The examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). “When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Because Warner teaches substantially similar processing steps performed on an alloy that falls within the instant alloying ranges, it is held that the same properties (fatigue crack growth rate) would be expected to be present.

Concerning claim 26, Warner teaches a substantially similar method of processing said alloy including steps of hot rolling, optional cold transforming, solution heat treat, quenching, cold stretching, aging (column 7 lines 30-35).

Concerning claims 27-28, Warner teaches said alloy can be made final sheets 6-60 mm thick (abstract).

Concerning claims 29 and 30, Warner teaches said alloy can be processed into a sheet for aircraft skin panels and lower wing structures (column 1 lines 10-11).

Concerning claim 31, as stated above, the alloying ranges taught by Warner overlap the instant ranges.

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP’636.

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JP'636 teaches 2-5% Cu, which broadly overlaps the presently claimed range of copper. Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility.

14. Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'636 in view of "Aluminum and Aluminum Alloys" p63-64.

Concerning claims 27-28, "Aluminum and Aluminum Alloys" teaches that flat rolled products are formed from high strength 2xxx Al-Cu alloys, wherein said rolled products range in thickness from >6.3mm (p 63). It would have been obvious to form a plate out of the alloy taught by JP'636 because "Aluminum and Aluminum Alloys" teaches substantially similar high strength 2xxx series alloys are available in a wide variety of sheet and plate thickness, including plate >6.3mm thick.

Concerning claims 29-30, "Aluminum and Aluminum Alloys" p. 64 teaches high strength 2xxx series alloys (such as 2024, 2124, etc) can be used as aircraft structural parts. It would have been obvious to one of ordinary skill in the art to form the alloy taught by JP'636 into a structural aircraft part, because "Aluminum and Aluminum Alloys" teaches that substantially similar 2000 series alloys are used for high strength application, including aircraft structural parts.

Provisional Double Patenting

15. Claims 1-8 and 11-31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-36 of copending Application No. 10/639776 (pub. No. US 2004/0060618, hereinafter US'618). Although the conflicting claims are not identical, they are not patentably distinct from each other because cl. 1-2 of US'618 teach an aluminum alloy (in weight%): 4.5-5.5% Cu, 0.5-1.6% Mg, $\leq 0.80\%$ Mn, 0.15% max. Fe, 0.15% max. Si, 0.18% max. Zr, 0.18% max Cr, which overlaps the presently claimed ranges of Cu, Mg, Mn, Fe, Si, Zr, and Cr (instant claims 1, 5-8, 11-20, 31). Cl. 1 of US'618 mentions said alloy is substantially free of Ag (see US'618 at claim 1).

Concerning instant claims 2-4 and 21-23, the alloy taught by the claims of US'618 is typically: provided in the T39 condition (see US'618 at cl. 21), $\geq 80\%$ recrystallized (see US'618 at cl 23), and exhibits a typical aspect ratio of 1:4 or less (US'618 at cl. 24).

Concerning instant claims 24-26, the claims of US'618 teaches an identical fatigue crack growth rate in cl. 26-27, as well as substantially the same working and heat treating steps performed on the instant Al-Cu alloy (see US'618 at cl. 36).

Concerning instant claims 27-30, the claims of US'618 teach said alloy product preferably has a thickness of 2.0mm-50mm (see US'618 at cl. 28-29), and is used for various aircraft applications, such as lower wing member or fuselage panels (see US'618 at cl. 30-31).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Claims 1-31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 of copending

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Application No. 10/642518 (pub. No. US 2004/0112480, hereinafter US'480). Although the conflicting claims are not identical, they are not patentably distinct from each other because cl. 1-2 of US'480 teach an aluminum alloy (in weight%): 3.6-4.9% Cu, 1.0-1.8% Mg, <0.30% Mn, 0.10% max. Fe, 0.1-0.4% max. Si, 0.15% max. Zr, 0.15% max Cr, which overlaps the presently claimed ranges of Cu, Mg, Mn, Fe, Si, Zr, and Cr (instant claims 1, 5-20, 31). Cl. 1 of US'480 does not mention said alloy contains Ag.

Concerning instant claim 2, the alloy taught by the claims of US'480 is typically provided in the T39 condition (see US'480 at cl. 21).

Concerning claims 3-4 and 21-23, the claims of US'480 do not teach the degree of recrystallization or aspect ratio. However, because the Al-Cu alloy product taught by the claims of US'480 substantially overlaps the presently claimed ranges, as well as the process taught by cl. 17 and 18 of US'480, then substantially the same microstructure is expected to occur.

Concerning instant claims 24-26, the claims of US'480 teaches an identical fatigue crack growth rate in cl. 14-15, as well as substantially the same working and heat treating steps performed on the instant Al-Cu alloy (see US'480 at cl. 23).

Concerning instant claims 27-30, the claims of US'480 teach said alloy product preferably has a thickness of 2.0mm-50mm (see US'480 at cl. 19-20), and is used for various aircraft applications, such as lower wing member or fuselage panels (see US'480 at cl. 21-22).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.


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Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCM 
January 6, 2005

ROY KING 
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700